

# ATTACHMENT 1

## ENVIRONMENTAL ASSESSMENT (EA WY-060-04-065) FOR THE ANTELOPE MINE COAL BED NATURAL GAS PLAN OF DEVELOPMENT

### Conservation Measures, Reasonable and Prudent Measures, Terms and Conditions, and Conservation Measures

taken from

**Final Biological and Conference Opinion for the Powder River Basin Oil and Gas Project, Campbell, Converse, Johnson, and Sheridan Counties, Wyoming** (Formal Consultation No. ES-6-WY-02-F006) which transmitted the U. S. Fish and Wildlife Service's (FWS) Biological and Conference Opinion based on its review of the proposed Powder River Basin Oil and Gas Project located in Campbell, Converse, Johnson, and Sheridan Counties, Wyoming, and its effects on the bald eagle, mountain plover, and Ute ladies'-tresses orchid in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

#### Conservation Measures

The BLM has attempted to minimize some of the direct and indirect impacts of the project to listed and proposed species, as well as the habitats for these species by incorporating the following conservation measures into the proposed project. These measures (taken verbatim from the September 3, 2002, FBA and identified as "mitigation") are as follows:

#### Bald Eagle

- CM1. In the event that a bald eagle (dead or injured) is located during construction or operation, the FWS Wyoming Field Office (307- 772-2374) and the FWS Law Enforcement Office (307-261-6365) will be notified within 24 hours.
- CM2. Site-specific project areas will be evaluated for suitable bald eagle nesting and roosting habitat prior to permit approval. Suitable nesting habitat is any mature stand of conifer or cottonwood trees in association with rivers, streams, reservoirs, lakes or any significant body of water. Suitable roosting habitat is defined as any mature stand of conifer or cottonwood trees.
- CM3. The BLM shall monitor all take (*incidental* of bald eagle habitat associated with the preferred alternative. The actual measurement of disturbed habitat is the responsibility of the Bureau but can be delegated to the Bureau's agent (consultant, contractor, etc). A written summary will be provided to the FWS Wyoming Field Office semi-annually. The semi-annual report will include field survey reports for endangered, threatened, proposed and candidate species for all actions covered under

- the FEIS for the Powder River Basin Oil and Gas Project and the Record Of Decision (ROD). The semi-annual reports will include all actions completed 30 days prior to the reporting dates. The first report will be due six months after the signing of the ROD and on the anniversary dates of the signing of the ROD. Reporting will continue for the life of the project.
- CM4. The BLM shall monitor all road-associated carcasses, jackrabbit sized and larger, along project (operator-maintained) roads.
  - CM5. All power lines would be built to protect raptors, including wintering bald eagles, from accidental electrocution using methods detailed by the Avian Power Line Interaction Committee (1996).
  - CM6. Special habitats for raptors, including wintering bald eagles, would be identified and considered during the review of the Application for Permit to Drill/Plan of Development (APD/POD) or Sundry Notices.
  - CM7. Surveys for active bald eagle nests and winter roost sites will be conducted within suitable habitat by a BLM-approved biologist. Surface disturbing activities will not be permitted within 1-mile of suitable habitat prior to survey completion.
  - CM8. A minimum disturbance-free buffer zone of 0.5 mile (i.e., no surface occupancy) would be established year round for all bald eagle nests. A seasonal minimum disturbance-free buffer zone of 1-mile would be established for all bald eagle nest sites (February 1 - August 15).
  - CM9. A seasonal minimum disturbance-free buffer zone of 1-mile would be established for all bald eagle winter roost sites (November 1 - April 1). These buffer zones and timing restrictions may be adjusted based on site-specific information through coordination with, and after written approval from the FWS.
  - CM10. Within 0.5 mile of bald eagle winter roost sites additional measures such as remote monitoring and restricting maintenance visitation to between 9:00 AM and 3:00 PM may be necessary to prevent disturbance (November 1 - April 1).
  - CM11. Maximum design speed on all operator constructed and maintained roads shall not exceed 25 miles per hour to minimize the chance of a collision with a bald eagle, other wildlife, or livestock.
  - CM12. Additional mitigation measures may be necessary if the site-specific project is determined by a BLM biologist to have an adverse affect to bald eagles or their habitat.

#### **Black-footed Ferret**

- CM13. Site-specific project areas will be evaluated for suitable black-footed ferret habitat prior to permit approval. Suitable habitat consists of a black-tailed prairie dog town

or complex greater than 80 acres (USFWS 1989). A prairie dog town is a group of intact prairie dog holes whose density exceeds 8 burrows/acre; a complex consists of 2 or more neighboring prairie dog towns each less than 4.34 miles (7 kilometers) from the other (USFWS 1989).

- CM14. Prairie dog colonies will be avoided wherever possible.
- CM15. If suitable prairie dog colonies cannot be avoided, surveys will be conducted in compliance with the FWS guidelines (USFWS 1989). The entire colony or complex affected will be surveyed, even if part of the colony has a burrow density below eight burrows per acre.
- CM16. If any black-footed ferrets are located, the Service will be consulted. Absolutely no disturbance will be allowed within prairie dog colonies inhabited by black-footed ferrets.
- CM17. Additional mitigation measures may be necessary if the site-specific project is determined by a BLM biologist to have an adverse affect to black-footed ferrets or their habitat.

#### **Ute ladies'-tresses**

- CM18. At the discretion of the surface owner, native species would be planted to re-establish special habitats.
- CM19. Site-specific project areas will be evaluated for suitable Ute ladies'-tresses orchid habitat prior to permit approval. Suitable habitat is characterized by moist soils near springs, lakes, or perennial streams; most occurrences are in alluvial substrates along riparian edges, gravel bars, old oxbows, and moist to wet meadows in the floodplains of perennial streams (USFWS 1995).
- CM20. Suitable habitat will be avoided wherever possible.
- CM21. If suitable habitat for Ute ladies'-tresses cannot be avoided, surveys will be conducted in compliance with the FWS's guidelines (USFWS 1995) by a BLM-approved biologist or botanist. Be aware, surveys can only be conducted between July 20 and August 31.
- CM22. Moist soils near wetlands, streams lakes or springs in the project area will be promptly revegetated if construction activities impact the vegetation in these areas. Revegetation will be designed to avoid the establishment of noxious weeds.
- CM23. Companies operating in areas identified with weed infestations or suitable Ute ladies'-tresses orchid habitat will be required to submit an integrated pest management plan prior to APD approval. The components of the integrated pest management plans are outlined in the CBM APD and POD Preparation Guide. Mitigation will be determined on a site-specific basis and may include such measures

as spraying herbicides prior to entering areas and washing vehicles before leaving infested areas. Infestation areas of noxious weeds have been identified through the County Weed and Pest Districts and are available at the BLM Casper Field Office.

- CM24. Additional mitigation measures may be necessary if the site-specific project is determined by a Bureau biologist to have an adverse affect to Ute ladies'-tresses orchids or their habitat.

### **Mountain Plover**

- CM25. In the event that a mountain plover (dead or injured) is located during construction or operation, the FWS Wyoming Field Office (307- 772-2374) and the Service's Law Enforcement Office (307-261-6365) will be notified within 24 hours.
- CM26. Site-specific project areas will be evaluated for suitable mountain plover nesting habitat prior to permit approval. Flat areas of short-grass prairie or low shrubs with a prevalence of bare ground characterize suitable mountain plover nesting habitat. Typically the vegetation height is less than 4 inches, and bare ground is greater than 30 percent.
- CM27. The BLM shall monitor all take of mountain plover habitat associated with the preferred alternative. The actual measurement of disturbed habitat is the responsibility of the BLM but can be delegated to the BLM's agent (consultant, contractor, etc). A written summary will be provided to the FWS's Wyoming Field Office semi-annually. The semi-annual report will include field survey reports for endangered, threatened, proposed and candidate species for all actions covered under the FEIS for the Powder River Basin Oil and Gas Project and the ROD. The semi-annual reports will include all actions completed 30 days prior to the reporting dates. The first report will be due 6 months after the signing of the ROD and on the anniversary dates of the signing of the ROD. Reporting will continue for the life of the project.
- CM28. No ground-disturbing activities shall occur in suitable nesting habitat prior to surveys for nesting mountain plovers conducted in compliance with the Service's Mountain Plover Survey Guidelines (USFWS 2002). A BLM-approved biologist will conduct the surveys. Once occupied mountain plover nesting habitat is located, the Bureau shall initiate section 7 consultation with the FWS on any project-related activities proposed for such habitat. The amount and nature of ground-disturbing activity shall be limited within identified nesting areas in a manner to avoid the abandonment of these areas.
- CM29. Operators and the BLM shall be provided by the FWS with educational material illustrating and describing the mountain plover, its habitat needs, life history, threats, and gas development activities that may lead to incidental take of eggs, chicks, or adults with requirements that these materials be posted in common areas and circulated in a memorandum among all employees and service providers.

- CM30. A disturbance-free buffer zone of 0.25 mile would be established around all mountain plover nesting locations between March 15 and July 31.
- CM31. Project-related features that encourage or enhance the hunting efficiency of predators of mountain plovers would not be constructed within 0.25 mile of known mountain plover nest sites.
- CM32. Construction of ancillary facilities (e.g., compressor stations, processing plants) shall not be located within 0.5 mile of known nesting areas. The threats of vehicle collision to adult mountain plovers shall be minimized, especially within breeding aggregation areas.
- CM33. Where possible, roads will be located outside of mountain plover nesting areas. Maximum allowed travel speed on roads within 0.5 mile of identified mountain plover nesting areas shall not exceed 25 miles per hour from March 15 to July 31.
- CM34. Maximum design speed on all operator constructed and maintained roads shall not exceed 25 miles per hour.
- CM35. Work schedules and shift changes should be set to avoid the periods from 30 minutes before to 30 minutes after sunrise and sunset during June and July, when mountain plovers and other wildlife are most active.
- CM36. The BLM shall monitor all road-associated carcasses, jackrabbit sized and larger, along project (operator-maintained) roads. The presence of carrion could attract mountain plover predators.
- CM37. Creation of hunting perches or nest sites for avian predators within 0.5 mile of identified nesting areas shall be avoided by burying power lines, using the lowest possible structures for fences and other structures, and by incorporating perch-inhibiting devices into their design.
- CM38. Capped and abandoned wells shall be identified with markers no taller than 4 feet with perch inhibiting devices on top to avoid creation of raptor hunting perches within 0.5 mile of nesting areas.
- CM39. Reclamation of areas of previously suitable mountain plover habitat would include the seeding of vegetation to produce suitable habitat for mountain plovers.
- CM40. To minimize destruction of nests and disturbance to breeding mountain plovers from reclamation activities, no grading, seeding, or other ground-disturbing activities shall occur from April 10 to July 10 unless surveys consistent with the FWS's Mountain Plover Survey Guidelines (USFWS 2002) find that no mountain plovers are nesting in the area.

- CM41. Additional mitigation measures may be necessary if the site-specific project is determined by a BLM biologist to have an adverse affect to mountain plovers or their habitat.

### **REASONABLE AND PRUDENT MEASURES**

The FWS believes the following reasonable and prudent measures (RPM) are necessary and appropriate to minimize impacts of incidental take of bald eagles and mountain plovers.

#### **Bald Eagle and Mountain Plover**

- RPM1. The BLM shall ensure implementation of all conservation measures identified and committed to as part of the action (outlined above in Project Description and more fully described throughout the September 3, 2002, FBA).
- RPM2. The BLM shall ensure direct habitat disturbance does not exceed that discussed in the FBA and evaluated in this Biological/Conference Opinion. Through minimization and monitoring of direct habitat disturbance, indirect disturbance to the species will also be minimized.

#### **Bald Eagle**

- RPM3. Reduce the possibility of vehicular collision with bald eagles, including reducing the amount of carrion present as a result of vehicular collision to discourage foraging by bald eagles.
- RPM4. Reduce the possibility of electrocutions of bald eagles.
- RPM5. Reduce the likelihood of disruption of nesting and roosting activities.

#### **Mountain Plover**

The following reasonable and prudent measures are designed first to avoid direct impacts to nesting mountain plovers through activity-specific nest searches, and second, to avoid or minimize impacts to known nesting aggregations by 1) avoiding or minimizing direct and indirect take of adults, eggs, or chicks on these areas, and 2) avoiding the abandonment of nesting aggregation areas.

- RPM6. Minimize indirect disturbance to the species through minimization and monitoring of direct habitat disturbance.
- RPM7. The BLM shall locate nesting areas and prevent direct take and indirect take within them.
- RPM8. The BLM shall work to avoid abandonment of nesting areas.
- RPM9. The BLM shall reduce the possibility of vehicular collisions with mountain plovers.
- RPM10. The BLM shall limit project-related features that increase the population levels or hunting efficiency of predators of the mountain plover in the vicinity of known plover nest sites.
- RPM11. Operators and BLM employees shall be shown how to identify the mountain plover and provided information about its habitat requirements, natural history, status, threats, and

possible impacts of gas development activities. Incidental observations of mountain plovers shall be solicited from all operator and Bureau field personnel.

## TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, the BLM must comply with the following terms and conditions (T&C), which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are nondiscretionary.

### All Species

- T&C1. In the event that a bald eagle (dead or injured) or mountain plover (dead or injured) is located during construction and operation, the FWS's Wyoming Field Office (307-772-2374) and the FWS's Law Enforcement Office (307-261-6365) will be notified within 24 hours. The action agency must provide for monitoring the actual number of individuals taken. Because of difficulty in identification, all small birds found dead should be stored in a freezer for the Service to identify.
- T&C2. The BLM shall monitor all loss of (1) bald eagle (nesting and roosting habitat as defined in the status of the species section of his Biological and Conference Opinion) and (2) suitable mountain plover habitat associated with all actions covered under the DBA; the *Draft Statement and Draft Planning Amendment for the Powder River Basin Oil and Gas Project*, the revised FBA dated September 3, 2002, the *Final Statement for the Powder River Basin Oil and Gas Project*, and the ROD for this project. The actual measurement of habitat loss can be the responsibility of the Bureau or Bureau's agent (consultant, contractor, etc.) with a written summary provided to the FWS's Wyoming Field Office semi-annually, or immediately if the Bureau determines that a site specific project proposed under the Powder River Basin Oil and Gas Project (*i.e.* Application for Permit to Drill/POD, Right-of-way grants, or Sundry Notices) will adversely affect a listed species. The tracking will include the location and acres of habitat loss, field survey reports, what stipulations were applied, and a record of any variances granted to timing and/or spatial buffers. For the purposes of this biological opinion, habitat loss is defined as the permanent or temporary alteration of habitat in such a way as to displace a species into unsuitable areas or impair/disrupt or prevent normal behavioral patterns such as breeding, feeding or sheltering. The monitoring of habitat loss for these species will commence from the date the ROD is signed. It is the responsibility of the Bureau to ensure that semi-annual reports are complete and filed with the Service in a timely manner. The semi-annual report will include field survey reports for endangered, threatened, proposed and candidate species for all actions covered under the FEIS for the Powder River Basin Oil and Gas Project and ROD. The semi-annual reports will include all actions completed under this biological and conference opinions up to 30 days prior to the reporting dates. The first report will be due 6 months after the signing of the ROD and thereafter on the anniversary dates of the signing of the ROD and 6 months after the signing of the ROD. Reporting will continue for the life of the project.
- T&C3. The BLM will initiate informal section 7 consultation with the Service when 50 percent of the allowed incidental take has occurred for either the bald eagle or the mountain plover to determine if additional measures need to be implemented to further minimize the potential for take of listed species.

- T&C4. The BLM shall require implementation of all conservation measures/mitigation measures for all species identified in the revised FBA prepared for the project and dated September 3, 2002, the FEIS for the Powder River Basin Oil and Gas Project, and the ROD. These measures are identified in the DESCRIPTION OF PROPOSED ACTION section of this Biological and Conference Opinion.
- T&C5. The BLM shall monitor for compliance with all Terms and Conditions.

### **Bald Eagle**

- T&C6. Power lines will be built to standards identified by the Avian Power Line Interaction Committee (1996) to minimize electrocution potential. Moreover, power lines will be built according to the additional specifications listed below. The BLM will ensure that these additional standards to minimize bald eagle mortalities associated with utility transmission lines, will be incorporated into the stipulations for all project actions (*i.e.* Application for Permit to Drill/POD, Right-of-way grants, or Sundry Notices). It should be noted that these measures vary in their effectiveness to minimize mortality, and may be modified as they are tested in the field and laboratory. Local habitat conditions should be considered in their use. The Service does not endorse any specific product that can be used to prevent and/or minimize mortality, however, we are providing a list of *Major Manufacturers of Products to Reduce Animal Interactions on Electrical Utility Facilities*. The following represents areas where bald eagle protection measures will be applied when designing/constructing new distribution lines or modifying existing facilities:

#### For new distribution lines and facilities:

- A. Bury distribution lines where feasible.
- B. Raptor-safe structures (e.g., with increased conductor-conductor spacing) are to be used that provide adequate spacing for bald eagles (*i.e.* minimum 60" for bald eagles).
- C. Equipment installations (overhead service transformers, capacitors, reclosers, etc.) are to be made bald eagle safe (e.g., by insulating the bushing conductor terminations and by using covered jumper conductors).
- D. Jumper conductor installations (e.g. corner, tap structures, etc.) are to be made bald eagle safe by using covered jumpers or providing adequate separation.
- E. Employ covers for arrestors and cutouts, when necessary.
- F. Lines should avoid high avian use areas such as wetlands, prairie dog towns, and grouse leks.

#### For modification of existing facilities:

- A. Existing structures, such as dead ends, tap or junction poles, transformers, reclosers and capacitor banks or other structures with less than 60" between conductors or a conductor and ground will need to be retrofitted to provide adequate spacing for bald eagles (*i.e.* minimum 60" for bald eagles).
- B. Cover exposed jumpers
- C. Gap any pole top ground wires
- D. Isolate grounded guy wires (install insulating link)
- E. On transformers, install insulated bushing covers, covered jumpers, and cutout covers and arrestor covers, if necessary
- F. If bald eagle mortalities occur on existing lines and structures, bald eagle protection measures are to be applied (e.g. modify for raptor-safe



construction, install safe perches or perching deterrents, nesting platforms or nest deterrent devices, etc.)

- G. In areas where midspan collisions are a problem, install line-marking devices that have been proven effective. All transmission lines that span streams and rivers, should maintain proper spacing and have markers installed.

- T&C7. A minimum year-round disturbance-free buffer zone (no surface occupancy (NSO)) of 0.5 mile will be established for all bald eagle nests. An alternative would be development of a site management plan, as discussed in the *GYBEWG* and the *MBEWG*, by the Bureau (with the cooperation and approval of the Service) for each bald eagle nest or winter roost site. Each site management plan will include the following zones: Zone 1 (Occupational Nesting Zone), Zone 2 (Primary use areas), and Zones 3 (home ranges). The BLM will restrict and monitor the types of activities to occur within each of these zones. No surface occupancy or use is allowed within 0.5 miles of known bald eagle nest sites which have been active within the past 5 years.
- T&C8. A seasonal disturbance-free buffer zone of 1 mile will be established for all bald eagle nests (February 15 - August 15). This buffer zone and timing may be adjusted based on site specific information through coordination with and with written concurrence of the FWS's Wyoming Field Office.
- T&C9. A year-round disturbance-free buffer zone of 0.5 mile will be established for all bald eagle roost sites. This buffer zone restriction may be adjusted based on site specific information through coordination with and with written concurrence of the FWS's Wyoming Field Office.
- T&C10. An additional seasonal buffer zone of 0.5 mile will be established for all bald eagle roost sites (November 1 - April 1). This buffer zone will start at the outside boundary of the 0.5 mile year-round disturbance-free buffer zone and extend out an additional 0.5 mile. However, within this seasonal buffer zone less restrictive measures such as remote monitoring of wells and/or restricting well maintenance visitations or human activity critical to project operations to between 9:00 AM and 3:00 PM may be allowed after coordination with the FWS's Wyoming Field Office and a demonstration that measures more protective of bald eagles are not reasonable or feasible.
- T&C11. Nest productivity monitoring will be conducted by the BLM or a BLM -approved biologist in areas with high levels of development (i.e., areas with greater than or equal to 4 well pads/section) within 1 mile of a bald eagle nest between March 1 and mid-July to determine nesting success (i.e., number of nestlings/fledglings per nest).
- T&C12. Appropriately-timed surveys for active bald eagle nests and winter roost sites will be conducted within 1 mile of proposed actions prior to permit (*i.e.* Application for Permit to Drill/POD, Right-of-way grants, or Sundry Notices) approval.

### **Mountain Plover**

- T&C13. A seasonal disturbance-free buffer zone of 0.25 mile will be maintained around all active mountain plover nest sites outside of black-tailed prairie dog towns between March 15 and July 31.
- T&C14. Disturbance to prairie dog towns will be avoided where possible. Mountain plover nests on prairie dog towns will have a year-round disturbance-free buffer zone of 0.25 mile once

- nesting has been confirmed. An exception may be granted by the authorized officer only after the Bureau consults with the FWS's Wyoming Field Office on a case by case basis and the operator agrees to adhere to any new operational constraints recommended by the Service.
- T&C15. Habitat suitability surveys will be conducted by a BLM biologist or BLM approved biologist prior to permit (*i.e.* Application for Permit to Drill/POD, Right-of-way grants, or Sundry Notices) approval.
- T&C16. Surveys for nesting mountain plovers will be conducted by a BLM biologist or BLM approved biologist if ground disturbing activities are anticipated to occur in suitable habitat between April 10 and July 10. The earlier date will facilitate detection of early-breeding plovers. Surveys will follow the most current version of the FWS's Mountain Plover Survey Guidelines (USFWS 2002 or most current version).
- T&C17. Roads will be located outside of nesting plover habitat wherever possible. Maximum allowed travel speed on roads within 0.5 mile of identified mountain plover nesting areas shall not exceed 25 miles per hour from March 15 to July 31.
- T&C18. Creation of raptor hunting perches will be avoided within 0.5-mile of identified nesting areas. Where artificial hunting perches are created within 0.5-mile of identified nesting areas perch inhibitors will be installed to deter avian predators from preying on mountain plovers and nests.
- T&C19. Native seed mixes will be used to re-establish short grass prairie vegetation during reclamation.
- T&C20. No ground-disturbing activities shall occur in suitable nesting habitat prior to surveys conducted in compliance with the FWS's 2002 Mountain Plover Survey Guidelines (attached) regardless of the timing of the disturbance. Once occupied mountain plover nesting habitat is located, the BLM shall reinitiate section 7 consultation with the Service on any project-related activities proposed for such habitat or within 0.25-mile of such habitat. The amount and nature of ground-disturbing activities shall be limited within and adjacent to identified nesting areas in a manner to avoid the abandonment of these areas.
- T&C21. There will be No Surface Occupancy (NSO) of ancillary facilities (e.g. compressor stations, processing plants, etc.) within 0.5 mile of known nesting areas. Variance may be granted only after consultation with and agreement of the Service.
- T&C22. Work schedules and shift changes should be set to avoid the periods from one-half hour before to one-half hour after sunrise and sunset during June and July, when mountain plovers and other wildlife are most active.
- T&C23. No dogs will be permitted at work sites to reduce the potential for harassment of plovers.
- T&C24. The FWS will provide the BLM and operators with educational material illustrating and describing the mountain plover, its habitat needs, life history, threats, and gas development activities that may lead to incidental take of eggs, chicks, or adults. The BLM and operators shall ensure these material are posted in common areas and circulated in a memorandum among all employees and service providers.

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The Bureau must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

Note: Incidental take coverage for the mountain plover does not occur until the mountain plover is listed as a threatened species. The mountain plover is currently protected by the Migratory Bird Treaty Act. Therefore, take of this migratory bird is prohibited, the issuance of this conference opinion notwithstanding.

### **CONSERVATION RECOMMENDATIONS**

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations (CR) are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- CR1. Develop programmatic standards and guidelines to be incorporated into Land Use Plan amendments or revisions for all future actions related to oil and gas development. Conservation measures should apply to all phases of oil and gas development, including operations and maintenance activities.
- CR2. To improve bald eagle nesting and roosting habitat cottonwood regeneration should be encouraged within the project area through reduction, modification and/or removal of domestic grazing, recreational use, or mineral extraction, if those activities are identified as being a cause of lack of regeneration.
- CR3. Road-killed animals (excluding migratory birds) should be promptly removed from areas within 0.5-mile of identified mountain plover nesting areas. Removing carrion from or near roads as soon as possible would minimize the possibility of vehicular collision with bald eagles foraging on or near roads and to avoid attracting avian and mammalian predators of mountain plover.
- CR4. Surveys of the entire project area should be conducted for mountain plovers (both nesting and brood rearing activities) to provide an estimate of population numbers in the area and availability of suitable habitat, and impacts of CBM development on this species.
- CR5. Conduct research to better understand the effects of oil and gas development on breeding mountain plovers. The focus of research should be to measure recruitment to the fall population, philopatry, and site fidelity between developed and undeveloped mountain plover breeding concentration areas on or near the project area. This effort would require close monitoring of a large sample of breeding adults, and possibly color-marking or radio-marking adults and juveniles.

- CR6. Mountain plover display high site fidelity and their long term absence from an area may preclude natural re-occupation of suitable habitat. If long term monitoring does not document any significant numbers of mountain plover in suitable habitat in the project area, translocate young mountain plover to unoccupied habitat to attempt re-establishment of local populations. Monitor marked birds to determine success of translocation.
- CR7. Surveys of all suitable habitat within the project area and all adjacent drainages should be conducted for Ute ladies'-tresses to determine the status and distribution of this species in the general vicinity.
- CR8. Re-establish prairie dog colonies in reclaimed or suitable habitat for nesting mountain plovers by translocating prairie dogs from occupied colonies within the area.
- CR9. Utilize remote monitoring technology to reduce site visits to well pads and ancillary facilities thereby, reducing wildlife disturbances and mortalities.

In order for the FWS to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the FWS requests notification of the implementation of any conservation recommendations.